with accuracy 96%. 19 patients with N2 negative EBUS pathology went on to have further staging with MS. Four of those patients proved to be N2 positive on mediastinoscopy. Two of these patients had N2 negative CT-PET.

In conclusion, EBUS in conjunction with CT -PET should be considered as a safe and effective alternative for MS in the staging algorithm in lung cancer. It is estimated that approximately 70% of MS could be avoided when EBUS is fully established. We believe that EBUS is a highly sensitive tool in staging of lung cancer and that it may offer a useful role in the re-staging of patients with lung cancer (stage IIIA) after neo-adjuvant therapy. Moreover, careful evaluation of mediastinal and hilar LN with EBUS provides very accurate, non-invasive staging in lung cancer thus assists planning the radical but non-surgical treatment with chemo-radiotherapy.

C2-04 **Staging Efficacy, Wed, 10:30 - 12:15**

Success of EBUS TBNA on centrally located lung tumors after non-diagnostic bronchoscopy in patients with suspected lung cancer

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Objective: To determine the ability of endobronchial, ultrasound-guided fine needle aspira-tion (EBUS-FNA) to successfully biopsy centrally located lung tumours in patients for whom conventional bronchoscopy has been non-diagnostic

Methods: Patients (n = 110) with suspected lung cancer and an intrapulmonary tumour lo-cated near or adjacent to the central part of the bronchial tree, or with suspected metastases to the mediastinum or to the hilar lymph nodes, and who had undergone a non-diagnostic bronchoscopy, underwent EBUS-FNA. Diagnoses based on EBUS-FNA biopsies were verified by mediastinoscopy or EUS FNA and if these procedures was non-diagnostic during surgical resection if the biopsy indicated non-small-cell lung cancer

Results: EBUS-FNA biopsies established a specific diagnosis in 103 of 110 patients (97%) and a diagnosis of lung cancer in 82 patients (72%). No complications occurred. The diagnoses made possible by EBUS-FNA were confirmed in all patients by mediastinoscopy, EUS FNA or thoracotomy. In 17 patients the malignant diagnose was obtained by puncture of N1 Lymph Nodes.

In 7 patients in whom EBUS-FNA was non-diagnostic because the cell types were not representative of this disease, a diagnosis was established at surgery.

Conclusions: EBUS-FNA qualifies as the next diagnostic step in patients with suspected lung cancer, if conventional bronchoscopy is non-diagnostic and when the intrapulmonary mass is located adjacent to or near the central parts of the bronchial tree or in whom metastases to the mediastinum or hilar lymph nodes is suspected. In these cases, EBUS-FNA may decrease the number of required mediastinoscopies and exploratory thoracotomies

C2-05 **Staging Efficacy, Wed, 10:30 - 12:15**

Is mediastinoscopy necessary for T1N0 NSCLC on both CT and integrated PET/CT scan?

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Background: Mediastinoscopy has been a gold standard for mediastinal staging of non-small cell lung cancer. We questioned that mediastinoscopy is still necessary as a staging tool for T1N0 NSCLC on both CT and PET/CT.

Methods: We conducted a retrospective review of 284 consecutive patients with T1N0 on both CT and PET/CT scan between July 2003 and December 2006. All patients were surgically examined for mediastinal node by mediastinoscopy (n=145) or direct curative pulmonary resection and complete mediastinal node dissection (n=139). Neoadjuvant therapy was planned for mediatinoscopy-positive patients (n=6) and pulmonary resection were performed for mediatinoscopy-negative patients (n=139).

Results: Median patient age was 60 years (23-81 years), and 59% were male (n=168). Cell types of lung cancer pathology included adenocarcinoma (n=201), bronchioloalveolar caricinoma(n=20), squamous carcinoma (n=44), large cell carcinoma(n=6), and others(n=13). Fifteen patients showed pathological N2 disease, therefore false negative rate of CT and PET/CT imaging was 5.3% (15/284). They had all pathology of adenocarcinoma. N2 disease was found in two patients (1 paratracheal and 1 subcarinal node) among 139 patients who underwent resection without mediastinoscopy. False negative rate of imaging combined with mediastinoscopy was 5.0% (7/139); 7 patients had N2 among 139 patients who underwent resection following mediastinoscopy-negative result (3 paratracheal/subcarinal, 3 subaortic, and 1 inferior pulmonary ligament LN).

Conclusions: CT and PET/CT scan provided satisfactory value of negative predictive rate of mediastinal node staging in T1N0 NSCLC. Further evaluation by mediastinoscopy in T1N0 on CT & PET/CT was not helpful due to limitation to examine subaortic and lower mediastinal nodes and its inherent procedural errors. In conclusion, mediastinoscopy is not recommendable for staging tool of T1N0 NSCLC on CT and PET/CT.

C2-06 **Staging Efficacy, Wed, 10:30 - 12:15**

Integrated PET/CT versus 3T whole body MR imaging: efficacy comparison in non-small cell lung cancer staging

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